AMENDMENTS TO THE CLAIMS:

The following listing of claims supersedes all prior versions and listings of claims in this application:

1. (Cancelled)

2. (Previously Presented) An apparatus according to claim 22, further comprising means for receiving payload data transmitted by other similar devices.

3. (Previously Presented) An apparatus according to claim 22, further comprising a data source.

4. (Previously Presented) An apparatus according to claim 22, wherein the evaluating means is arranged to identify a suitable receiving device if the scalar status value meets one or more threshold criteria.

5. (Previously Presented) An apparatus according to claim 4, wherein a threshold criterion is that the remaining battery power is at least sufficient to transmit all the data currently in the buffer.

6. (Previously Presented) An apparatus according to claim 4, having means for selecting a threshold criterion as a function of elapsed time from a predetermined start point.

7. (Previously Presented) An apparatus according to claim 22, further comprising condition-monitoring means for monitoring expected lifetime of the device, and adjusting the scalar status value accordingly.

8. (Previously Presented) An apparatus according to claim 22, wherein the separation distance between devices is determined from the power required to make a transmission between them.

9. (Previously Presented) An apparatus according to claim 22, comprising means for determining the power that would be required to transmit payload data to an identified receiving device, and means for generating a scalar status value related to that power requirement.

10. (Previously Presented) An apparatus according to claim 9, wherein the identified receiving device on which the power determination is based is the device selected for transmission on a previous determination.

11. (Previously Presented) An apparatus according to claim 9, wherein the scalar status value h is determined by the value (N + k) C/ B

where N = number of packets of data currently in the buffer,

B = battery level,

C = power requirement of forwarding to the identified receiving device, and

k is a constant.

12. (Cancelled)

13. (Previously Presented) A method according to claim 20, wherein data is only transmitted from a first device to a second device located in its forwarding direction if the scalar status value derived from the status data meets one or more predetermined threshold criteria.

14. (Original) A method according to claim 13, wherein a threshold criterion is that the remaining battery power is at least sufficient to transmit all the data currently in the buffer.

15. (Previously Presented) A method according to claim 20, wherein the sensor data includes a measure of the expected lifetime of the device.

16. (Previously Presented) A method according to claim 20, wherein the sensor data is transmitted, by means of one or more of the mobile data relay devices, to a target sink device defined by a predetermined scalar status value.

17. (Previously Presented) A method according to claim 20, wherein the power that would be required to transmit sensor data to the identified other device is determined, and a scalar status value is generated related to that power requirement.

18. (Previously Presented) A method according to claim 17, wherein the identified other device on which the power determination is based is the device selected for transmission on a previous determination.

19. (Previously Presented) A method according to claim 17, wherein the scalar status value h is determined by the value (N + k) C/B

where N = number of packets of data currently in the buffer,

B = battery level,

C = power requirement of forwarding to the identified receiving device, and

k is a constant.

20. (Currently Amended) A method of collecting data from distributed mobile data sensors respectively associated with mobile data relay devices communicating with each other in an ad hoc mobile network when they happen to be within communication range of each other, said method comprising:

collecting sensor data in buffer stores of each said mobile data relay device;

generating a scalar status value in each said mobile data relay device, the value being indicative of the relative status of that device, and based on current local status parameters including at least the amount of collected sensor data currently accumulated in its buffer store and its separation distance from other of said mobile data relay devices;

communicating respective said scalar status values between said mobile data relay devices that happen to be within communication range of each other;

at each said mobile data relay device, evaluating received scalar status values from other devices ~~with respect~~ relative to its own scalar status value; and

if said evaluation determines that the status value of an identified one of the other devices and the status value of the mobile data relay device differ in a manner and direction that satisfies a predetermined condition ~~for an identified one of the other~~

~~devices~~, then transmitting at least part of its accumulated sensor data from its buffer store to said identified other device where the received sensor data is stored in its buffer store for later similar transfer to yet another device.

21. (Previously Presented) A method as in claim 20, wherein:

at least one higher powered data sink station also communicates with said mobile data relay devices when they happen to be within communication range; and

said data sink station communicates a scalar status value which, when received by a data relay device, will be evaluated so as to cause the data sink station to be identified as the recipient of accumulated sensor data from the buffer store of that data relay device.

22. (Currently Amended) An apparatus for collecting data from distributed mobile data sensors respectively associated with mobile data relay devices communicating with each other in an ad hoc mobile network whenever they happen to be within communication range of each other, said apparatus comprising:

data collection means for collecting sensor data in buffer stores of each said mobile data relay device;

status data generation means for generating a scalar status value in each said mobile data relay device, the value being indicative of the relative status of that device,

and based on current local status parameters including at least the amount of collected sensor data currently accumulated in its buffer store and its separation distance from other of said mobile data relay devices;

transmitter and receiver means for communicating respective said scalar status values between said mobile data relay devices that happen to be within communication range of each other;

means for evaluating, at each said mobile data relay device, received scalar status values from other devices ~~with respect~~ relative to its own scalar status value; and

if said evaluation determines that the status value of an identified one of the other devices and the status value of the mobile data relay device differ in a manner and direction that satisfies a predetermined condition ~~for an identified one of the other devices~~, then transmitting at least part of its accumulated sensor data from its buffer store to said identified other device where the received sensor data is stored in its buffer store for later similar transfer to yet another device.

23. (Previously Presented) An apparatus as in claim 22, wherein:

at least one higher powered data sink station also communicates with said mobile data relay devices when the happen to be within communication range; and

said data sink station communicates a scalar status value which, when received by a data relay device, will be evaluated so as to cause the data sink station to be

identified as the recipient of accumulated sensor data from the buffer store of that data relay device.